Practical 10

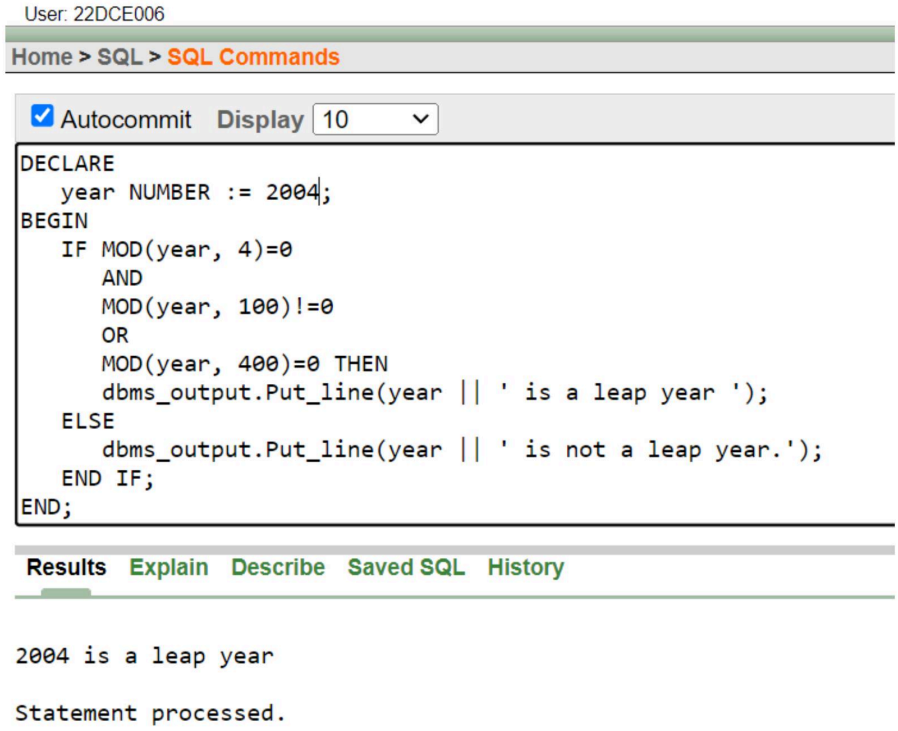
Aim: To perform basic PL/SQL blocks

1. Write a PL-SQL block for checking weather a given year is a Leap year or not.

Query:

```
DECLARE
  year NUMBER := 2004;
BEGIN
  IF MOD(year, 4)=0
    AND
    MOD(year, 100)!=0
    OR
    MOD(year, 400)=0 THEN
    dbms_output.Put_line(year || ' is a leap year ');
  ELSE
    dbms_output.Put_line(year || ' is not a leap year.');
  END IF;
END;
```

Output:



2. Find out whether given string is palindrome or not using for a while and simple loop.

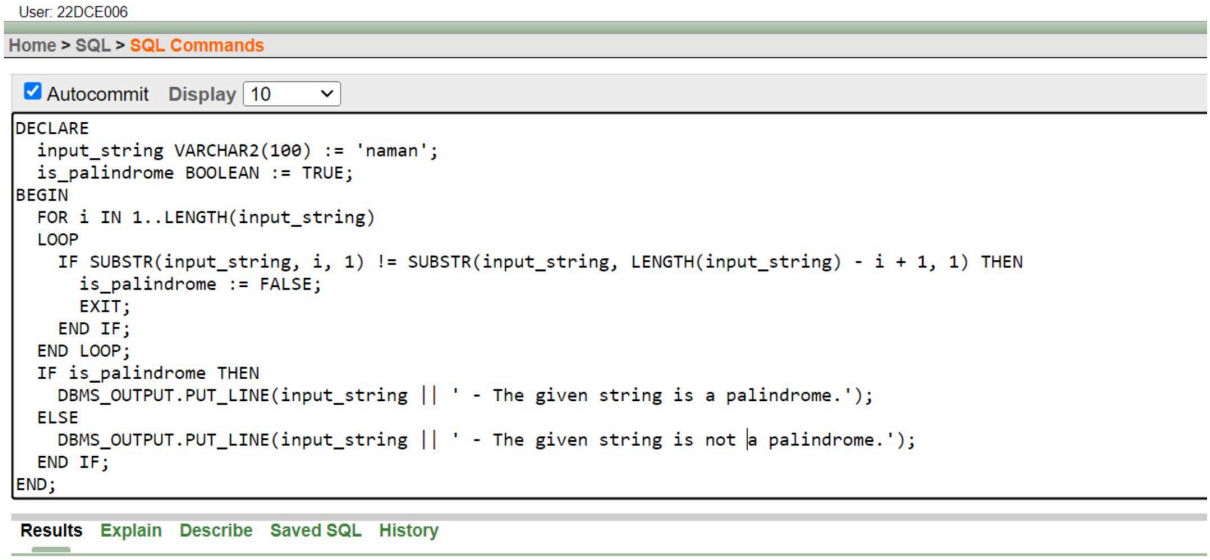
Using For Loop

Query:

```
DECLARE
  input_string VARCHAR2(100) := 'naman';
  is_palindrome BOOLEAN := TRUE;
BEGIN
  FOR i IN 1..LENGTH(input_string)
```

```
 LOOP
   IF SUBSTR(input_string, i, 1) != SUBSTR(input_string, LENGTH(input_string) - i
+ 1, 1) THEN
     is_palindrome := FALSE;
     EXIT;
   END IF;
 END LOOP;
 IF is_palindrome THEN
   DBMS_OUTPUT.PUT_LINE(input_string || ' - The given string is a palindrome.');
 ELSE
   DBMS_OUTPUT.PUT_LINE(input_string || ' - The given string is not a
palindrome.');
 END IF;
END;
```

Output:



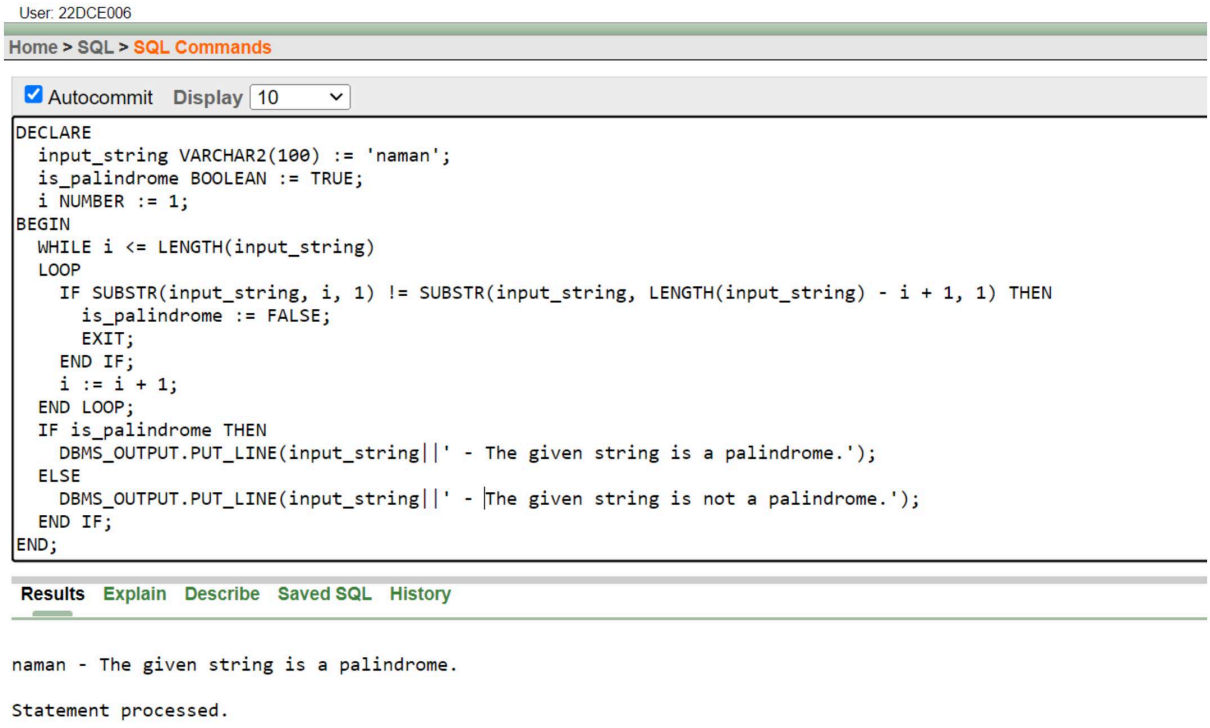
Using While Loop

Query:

```
DECLARE
 input_string VARCHAR2(100) := 'naman';
 is_palindrome BOOLEAN := TRUE;
 i NUMBER := 1;
BEGIN
 WHILE i <= LENGTH(input_string)
 LOOP
   IF SUBSTR(input_string, i, 1) != SUBSTR(input_string, LENGTH(input_string) - i
+ 1, 1) THEN
     is_palindrome := FALSE;
     EXIT;
   END IF;
```

```
  i := i + 1;
 END LOOP;
 IF is_palindrome THEN
  DBMS_OUTPUT.PUT_LINE(input_string||' - The given string is a palindrome.');
 ELSE
  DBMS_OUTPUT.PUT_LINE(input_string||' - The given string is not a palindrome.');
 END IF;
END;
```

Output:



Conclusion: From this practical I learned about basic pl/sql functions and use of loops.

Staff Signature:

Grade:

Remarks by the Staff: